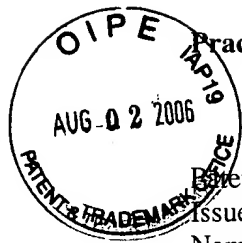


09/786 009

CgC



Practitioner's Docket No. NEB-150-PUS

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Patent Number: 7,001,745  
Issued: February 21, 2006  
Name of Patentee: Ming-qun Xu

Title of Invention: Intein-Mediated Peptide Ligation

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

REQUEST FOR CERTIFICATE OF CORRECTION OF PATENT  
FOR PTO MISTAKE (37 C.F.R. § 1.322(a))

1. Attached is PTO/SB/44 (also Form PTO-1050) in a form suitable for printing.
2. The abstract printed in the above-referenced patent is an abstract completely unrelated to the subject case and not belonging in the file. It is an abstract of patent numbers 6,500,798 and 6,939,847, both of which are assigned to the Board of Regents, The University of Texas System. The abstract that should have been printed with the above-referenced patent is the abstract of its parent PCT case, namely, PCT/US99/22776 filed September 30, 1999 and published on April 6, 2000 as PCT publication No. WO00/018881.
3. Please send the Certificate to:

Name: Harriet M. Strimpel, D.Phil.  
Address: New England Biolabs, Inc.  
240 County Road  
Ipswich, MA 01938

**Certificate**

AUG 07 2006

**of Correction**

Assignee: New England Biolabs, Inc.

New England Biolabs, Inc.

Assignee

Harriet M. Strimpel, D.Phil., Chief Patent  
Counsel

Assignment recorded on February 28, 2001  
Reel 011618  
Frame 0819

AUG 07 2006

## UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

Page 1 of 1

PATENT NO. : 7,001,745

APPLICATION NO.: 09/786,009

ISSUE DATE : February 21, 2006

INVENTOR(S) : Ming-qun Xu, et al.

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

On title page, item 57 Abstract

replace

with

(57)

**ABSTRACT**

The present invention provides methods that utilize compositions containing colostrinin, an constituent peptide thereof, an active analog thereof, and combinations thereof, as an oxidative stress regulator.

(57) Abstract: An in vitro method for producing a semi-synthetic fusion protein is provided, whereby a target protein fused to an intein - a protein splicing element - is selectively cleaved in a first step as depicted in Figure 1 with a thiol reagent, forming a carboxyl-terminal thioester of the target protein and releasing the target protein from the intein. In a subsequent step as shown in Figure 1, a desired, synthetic, protein or peptide having an amino-terminal cysteine is ligated to the target protein. Standard thiol-reagents such as DTT, or thiol-reagents optimized for ligation such as the odorless MESNA, may be used in the first step. The method permits the direct ligation of a desired peptide to a thioester bond that had linked a target protein to an intein. An in vivo variation of the method will permit production of a cytotoxic protein: a truncated, inactive, form of the protein fused to an intein is introduced in vivo, this fusion product is then selectively cleaved, and a synthetic protein or peptide is subsequently ligated at a carboxyl-terminal thioester of the target protein in order to restore the native activity of the cytotoxic protein.

MAILING ADDRESS OF SENDER (Please do not use customer number below): 7,001,745

Harriet M. Strimpel, D.Phil.  
New England Biolabs, Inc.  
240 County Road  
Ipswich, MA 01938

3

This collection of information is required by 37 CFR 1.322, 1.323, and 1.324. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1.0 hour to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Attention Certificate of Corrections Branch, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

AUG 07 2005

## UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

Page 1 of 1

PATENT NO. : 7,001,745

APPLICATION NO.: 09/786,009

ISSUE DATE : February 21, 2006

INVENTOR(S) : Ming-qun Xu, et al.

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

On title page, item 57 Abstract

réplace

with

(57)

**ABSTRACT**

The present invention provides methods that utilize compositions containing colostrinin, an constituent peptide thereof, an active analog thereof, and combinations thereof, as an oxidative stress regulator.

**(57) Abstract:** An in vitro method for producing a semi-synthetic fusion protein is provided, whereby a target protein fused to an intein - a protein splicing element - is selectively cleaved in a first step as depicted in Figure 1 with a thiol reagent, forming a carboxyl-terminal thioester of the target protein and releasing the target protein from the intein. In a subsequent step as shown in Figure 1, a desired, synthetic, protein or peptide having an amino-terminal cysteine is ligated to the target protein. Standard thiol-reagents such as DTT, or thiol-reagents optimized for ligation such as the odorless MESNA, may be used in the first step. The method permits the direct ligation of a desired peptide to a thioester bond that had linked a target protein to an intein. An in vivo variation of the method will permit production of a cytotoxic protein: a truncated, inactive, form of the protein fused to an intein is introduced in vivo, this fusion product is then selectively cleaved, and a synthetic protein or peptide is subsequently ligated at a carboxyl-terminal thioester of the target protein in order to restore the native activity of the cytotoxic protein.

MAILING ADDRESS OF SENDER (Please do not use customer number below): 7,001,745

Harriet M. Strimpel, D.Phil.  
New England Biolabs, Inc.  
240 County Road  
Ipswich, MA 01938

3

This collection of information is required by 37 CFR 1.322, 1.323, and 1.324. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1.0 hour to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Attention Certificate of Corrections Branch, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

*If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.*

AUG 07 2006